# 5 Port Gigabit Desktop Switch
# 4x10/100/1000T, 1x SFP Slot

# MICROSENS

## General

The MICROSENS Desktop Switch offers the connection of up to 4 end devices via twisted pair cable. The additional Gigabit SFP Slot allows the direct connection to a fiber optic network.

This switch distinguishes itself by the very compact design. Particular in the end user level the use of this switch is very cost effective which makes him suitable for the fiber connection of small work groups to the central locations.

The twisted pair port select the speed of the connected end device automatically (10/100/1000 Autonegotiation). The SFP Slot for the connection to the central distribution room is working with 1000 Mbps.

## Architecture

The switch has a non blocking architecture and is operating with the store and forward technology. For storing the data the switch has a 4 KBytes integrated memory.

There is an integrated MAC address management which can handle up to 2048 MAC addresses at the same time whereby the storing of the address is only done after receiving a valid data packet. Five to ten minutes after receiving a data packet the related MAC address is deleted again (aging).

Due to the integration of the auto crossing function a separation in crossed and 1:1 patch cables is no longer necessary. The switch detects the type of device and configures the pinout accordingly. This allows the connection of end devices and the cascading of other switches with the same patch cable.

## Features

- Cost effective, compact, fan less Gigabit Ethernet switch
- 4x 10/100/1000Base-T Autonegotiation, 1x SFP Uplink-Slot
- Layer 2 non blocking, 2k MAC addresses, 1MByte RAM
- Optional with web-management
- Data Prioritisation, VLANs, Spanning Tree (web management)
- 10 Gbps backplane

## Transmission Speed

The twisted pair ports of the switch are selecting the highest possible speed automatically. The LEDs are indicating the selected speed.

If the LEDs LNK/ACT of the twisted pair ports are green a Fast Ethernet or Gigabit Ethernet connection is established. For an Ethernet connection (10 Mbps) this LED is off. The fiber uplink is a pure SFP 1000base-X port. The link detection is indicated by a green LED.

The transmission in full duplex mode is indicated by the related LED. If the transmission is done in half duplex mode this LED is flashing.
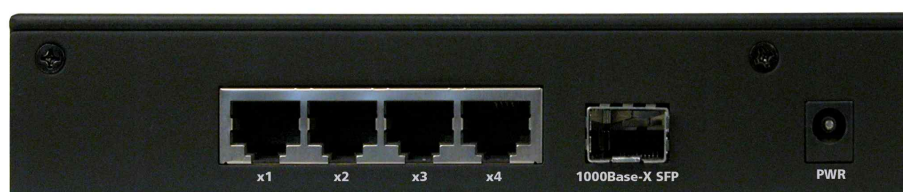
## Construction



Fig. Front View



Fig. 2: Rear View

## Power Supply

Because of warranty reasons it is only allowed to use the power supply delivered by MICROSENS.

The power supply is done by an external power supply. This power supply is included at delivery. The connection is done by a plug connector.

## Technical Specifications

| | |
|---|---|
| **Type** | Gigabit Ethernet Mini Switch with 1x SFP Slot Uplink<br>4x 10/100/1000Base-T |
| **Cable Type** | STP cable, 100 $\Omega$, Category 5 with RJ-45 connector |
| **Max. cable length** | 100 m (Twisted-Pair) |
| **SFP Slot** | depending on the SFP |

**Data rate**

| | | |
|---|---|---|
| | Copper: | 10/100/1000 Mbps |
| | Fiber: | 1000 Mbps |

**LED Displays**

| | | | |
|---|---|---|---|
| | POWER | green: | ready for operation |
| | LNK/ACT | green: | port with 100/1000Mbbps |
| | | green/on: | Link at port |
| | | green/flashing: | data transmitted |
| | FDX/COL | orange/on: | port in full duplex mode |
| | | orange/flashing: | collision |

| | |
|---|---|
| **Power Supply** | external wide range power supply with 12 V DC, 700 mA (included at delivery) |
| **Power consumption** | max. 7.5 Watt |
| **Operating temp.** | 0°C to 45°C |
| **Rel. Humidity** | 10% to 90% non condensing |
| **Dimensions** | 165 x 24 x 100 mm (w x h x d) |

## Safety Notes

**WARNING:** Infrared radiation as used for data transmission within the fiber optic, although invisible to the human eye, can nevertheless cause damage.

To avoid damage to the eyes:

- never look straight into the output of fiber optic components – danger of blinding!
- cover all unused optical connections with caps.
- commission the transmission link only after completing all connections.

The active laser components used with this product comply with the provisions of **Laser Class 1**.

**DANGER:** Conductive components of power and telecommunications networks can carry dangerously high voltage.

To avoid electric shock:

- Do not carry out installation or maintenance work during lightning storms.
- All electric installations must be carried out in accordance with local regulations.

## Order Information

| Art.-No. | Description | Connectors |
|----------|-------------|------------|
| MS453510 | 5 Port Gigabit Ethernet Desktop Switch<br>4x 10/100/1000Base-T, 1x SFP Slot<br>external power supply | 4x RJ-45<br>1x SFP Port<br>1x 12 V DC power |
| MS100200G | SFP Gigabit Ethernet Transceiver 1.25 Gbps<br>850nm VCSEL Multimode, LC connector | 2x LC connector |

# www.microsens.com